Case 2. The patient, 25 years of age, gravida II, para II, was admitted to the gynecologic service 12 May 1969 with complaint of premenstrual fever and abdominal pain of three months' duration. She said that she had also had intermittent abdominal pain two years previously after insertion of a Lippe's loop. No abnormality was noted on pelvic palpation. An x-ray examination showed an IUCD with slight deformity suggesting intramural lodgement of the device. Laparoscopy was done to determine the location of the IUCD and for tubal cauterization, which was performed. The longest arm of the loop was observed perforating the right posterior uterine wall. It was removed transvaginally under laparoscopic observation. The patient was asymptomatic and was discharged on the second postoperative day.

Case 3.* The patient, 21 years old, gravida II, para I, had had a therapeutic abortion by suction curretage in June 1971, and four weeks later a size C Lippe's loop was inserted without pain or other difficulty. She had had regular periods and was able to palpate the string attached to the loop. Her last period, beginning 5 September 1971, was associated with severe cramping and heavy bleeding. Following the period the patient was unable to feel the IUD string, and it was not visible at the cervix on examination. An x-ray film showed the IUD in the pelvic area. Peritoneoscopy was performed 14 October 1971 and the device was seen to be interwoven in the tip of the omentum in the pelvis. It was grasped and removed without difficulty through the secondary trocar. The patient did well postoperatively, and was discharged on the first postoperative day.

Summary

Intra-uterine contraceptive devices that had lodged at extra-uterine sites in the abdomen were successfully removed by laparoscopy in three cases.

*Presented through the courtesy of Larry C. Hubbell, M.D., Bakersfield, California.

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Chloroformism—A New Case of a Bad Old Habit

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NITROUS OXIDE, ETHER AND chloroform were the three, volatile, anesthetic agents which launched the history of surgical anesthesia in the first half of the nineteenth century. Although the "Scottish chloroform legend"[1] allegedly minimized the dangers of chloroform, it was that agent which produced the first recorded death under anesthesia, when administered to a 15-year-old English girl before the intended removal of an ingrowing toenail in the year 1848.[2]

Chloroform was also the agent self-administered by Horace Wells, one of the pioneers of anesthesia, as a prelude to his suicide in a New York prison at the age of 33, also in 1848. The week before his suicide, Wells had reportedly become increasingly dependent on chronic chloroform usage: "Day after day during that week he inhaled more and more from his chloroform bottle. Then the break came. He ran completely amuck and was arrested."[3]

The continued acceptance and use of chloroform in England was undoubtedly bolstered by Queen Victoria's reliance upon it during the birth of her eighth child, Prince Leopold, in 1853.[4]

There are scattered allusions in the literature to the "frolics," "sprees" and "jags" of medical students and others who used volatile anesthetics for pleasure during the 19th century. A first person account by a young man who had become a "chloroform fiend" was read by his physician to the Detroit Academy of Medicine in 1885: "It is

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a heaven of chaste pleasures. What I most remember is the vivid pictures that would seem to pass before my eyes – creations of marvelous beauty—every image distinct in outline, perfect in symmetry and brilliant in coloring. The enjoyment is purely passive; you have only to watch vision after vision. . . . I felt no craving for my pet intoxicant during the day—did not give it a thought often until bed time came, and then it would occur to me for a moment to try and see how it would seem to go to sleep in the ordinary way, the conclusion always being that—tomorrow night I would make the experiment."[5] The Academy also heard another physician present a series of case reports of chloroformomania, the victim of which ". . . finds his digestion impaired, circulation impeded, locomotion affected, correlation of ideas impossible, virility lessened, and a complete demoralization of both body and mind tending to a morbid condition, the only relief from which is the insensibility produced by chloroform, thus adding fuel to the fire and eventually ending in syncope and sudden death."[6]

Chloroformism has been reported very rarely in recent years, although in 1945, a case was described from the Menninger Sanitarium of a schizophrenic man, an alcoholic, who had also become dependent upon chloroform.[7] With the widespread current press accounts of the many inhalant substances (particularly in aerosol preparations) with which young people today experiment for pleasurable results, it is hardly surprising that we have encountered a young adult with a history of severe and prolonged chloroform habituation.

Report of a Case

A 24-year-old, married, white, U.S. Navy enlisted man was seen 2 April 1971 on self-referral at the University and Fifth Service of the University of California at San Diego Department of Psychiatry with the presenting complaint that he was addicted to chloroform and wanted medical-psychiatric assistance in getting rid of his addiction and in finding out if he had suffered any damage from it. He said that he had begun using chloroform at the age of seventeen while a senior in a private boarding high school. He obtained the chloroform from the chemistry laboratory and used it about 15 times that year to put himself to sleep at night. During college his usage increased to the point where he felt he was "psychologically addicted and couldn't sleep without it." By reading textbooks on chloroform he became expert enough to take elaborate precautions against hypoxia and overdosage. He denied using it to calm nervousness or to get high. After graduation from college, he was using about one gallon of chloroform every six months for sleep but was able to hold a responsible sales job. At age 23 he began active military service. Because of "boredom" his usage increased sharply "to make time fly" until discharge, and he used chloroform regularly, morning and night. With heavy, steady usage on weekends he began to enjoy a "high" during the six months before admission, and was consuming two gallons of chloroform every two weeks during that period. He said, however, that he would spill a significant amount while intoxicated.

A typical day would consist of his inhaling about 5 to 10 ml of chloroform from a small wide-mouth plastic bottle after work. He would then briefly nap, eat and take another dose for sleep. He would usually awaken about 4:00 a.m. when he would take another dose. In the morning he would be a bit groggy but otherwise he would feel fine and would bicycle to work. He has not used chloroform during the work day, but on weekends uses 5 to 10 ml every two or three hours and thus is usually in a twilight state during weekends. While on a week's vacation just before admission, he was using chloroform continuously and was troubled by paresthesias, restlessness, body aches and occasional vomiting. Several times his wife found him gagging while comatose.

His past history was quite unremarkable. He is one of four children; the other three are alive and well. They grew up in a strict, mid-western farm-community and the patient was a "model son" and a good student. He majored in chemistry and graduated in business administration. Before being drafted he was making $16,000 a year as the sales manager of a business firm. He has been married for one year, without reported difficulty. His wife is a laboratory technician. When she learned of his drug use (after they were married), her concerns were assuaged by his assurances that he could stop anytime he wished. His past medical history was not extraordinary except for "prostatic congestion" treated by prostate massage. He denied the intake of any drugs other than chloroform. His physical

complaints, other than those mentioned, consisted only of a dry nasal mucosa which bled easily (presumably secondary to his habit) and frequent watery diarrhea.

Psychiatric examination revealed an intense, talkative, neatly and conservatively dressed and groomed young man with moderate hyperactivity and pressure of speech. He overexplains, overcontrols, and is very self-centered. He demonstrates no evidence of psychosis, affective disorder, or deficiency in memory or thinking. Results of a complete physical examination, including neurological and rectal examinations, were within normal limits.

The patient was admitted for detoxification on the day first seen, and was placed under close observation. During the first 36 hours after withdrawal he experienced mild cramping and paresthesias in his limbs, but was thereafter asymptomatic. He received only diazepam (Valium®) 10 mg at night, for sleep. After three days he was discharged with prescription of Valium, 2.5 mg as needed for sleep. Urological consultation revealed no genito-urinary disease.

Blood cell count, urinalysis, bromsulfalein test, glucose tolerance, blood urea nitrogen, creatinine, uric acid, serum calcium, electrolytes, bilirubin, amylase, lactic dehydrogenase, alkaline phosphatase, cholesterol and protein-bound iodine determinations, as well as chest x-ray films and an electroencephalogram were all within normal limits. A VDRL test was non-reactive. Prothrombin time for the patient was 12.5 seconds; for the control, 10.8 seconds. Partial thromboplastin time for the patient was 36.0 seconds; control, 28.0 seconds. SGOT was 67 units (8 to 40 units normal range), and SGPT was 41 units (5 to 35 units normal range). Serum electrophoresis values (grams per 100 ml) were:

Albumin 5.1 (3.5 to 5.5 normal range)
Globulin 1.5 (2.6 to 3.8 normal range)
alpha-1 0.2 (0.2 to 0.4 normal range)
alpha-2 0.3 (0.5 to 0.9 normal range)
beta 0.4 (0.6 to 1.1 normal range)
gamma 0.6 (0.7 to 1.7 normal range)

Follow-up

The patient felt confident that he could maintain himself on a drug-free status and declined to enter psychotherapy. Follow-up contacts two weeks after discharge and four months after discharge revealed that he was working, sleeping without difficulty, taking no drugs whatsoever, and felt no need for further professional assistance. Repeat laboratory examination four months after discharge revealed normal liver enzyme levels, a normal prothrombin time, but a still elevated partial thromboplastin time (patient, 37.2 seconds; control, 28.8 seconds) and a still low serum globulin level (1.9 grams per 100 ml).

Summary

A 24-year-old man who was chonically and increasingly habituated to chloroform for seven years reached the point, six months before seeking help, of morning and evening usage every day with near steady state intoxication on weekends, culminating in a state of steady intoxication during the week before voluntary admission to hospital for detoxification. After three days of hospital care during which chloroform was immediately discontinued and only small doses of diazepam were given, he was discharged free of symptoms. At one month and four month follow-ups he was functioning well without drugs of any kind. Despite the known hepatotoxicity[8,9] of chloroform, and the degree, duration and tenacity of his habituation, he was found to have only borderline indications of hepatic dysfunction and minimal psychopathology.

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